

PROJECT TITLE : CIGARETTE DEVELOPMENT - TECHNICAL REPORT
WRITTEN BY : Z. SINGER
PERIOD COVERED : January 5th - 27th 1981

FINLAND

303. COUNTRY

Objective

To develop a diluted version of the MARLBORO Finland in order to reduce the CO delivery in the mainstream smoke.

Description of samples and results

A diluted MLF, prototype COU 303, was produced by ATO. The blend and filtering materials are the same as those of the undiluted existing MLF Finland. In order to be able to carry out dilution, the combination of Z3/60 electro-perforated tipping paper from Benkert with FU-POV 40 L porous plug wrap was used.

In order to maintain the same impact of the first puffs, the less porous Tercig 08,5 ND 4321 cigarette paper had to be used.

Comments on the results obtained and problems encountered :

- The cigarette tobacco weight is not within the specifications (standard specification : 793 mg). It is 68 mg out (- 9 %).
- In spite of the lower tobacco weight, an improvement in the firmness of the cigarette was observed (very curious).
- The prototype was tested against current MLF Finland. For the control sample it was not possible to find out the production date.

In view of these facts, it was suggested to repeat the trial following the standard specified weight and, at the same time, to produce the undiluted (current) version.

R & D PROJECT402 PITCH 3Objective

TAR : 3 mg/cig.
SN : 0.3 mg/cig.
Format : 7.95 / 25 / 84.4
Taste direction : GAMMA

Summary

Following the PMS specifications the target TAR/SN values could be achieved :

- by using filtering materials of higher retention capacity.
- by increasing the dilution.
- by a combination of the above.

A cigarette paper of higher porosity than the existing Ecusta 708 (porosity 68 ml/cm²/min) could have a somewhat negative influence on the quality of the first puffs.

Description of samples and results

Based on the PMS blend (27 % of ET) trials were carried out with different filter and tipping papers and standard Ecusta 708 cigarette paper.

Three prototypes came within the objective :

Prototype No	3 P	8 P	9 P
Tipping paper	6xM 0.15.4.5	4xM 0.3.3.5	2xM 3.0.0.0
Filter	US 2.0Y/48000	2.5Y/55000	2.5Y/48000
Dilution	65 (3.01)	61 (2.39)	64 (6.52)
Total RTD	88	98	75
Filter RTD	124	129	93
DPM	3.2 (0.47)	3.4 (0.18)	3.5 (0.42)
TAR	2.9	3.1	3.2
SN	0.30	0.31	0.32
CO	4.1	4.4	4.4
NO	0.08	0.08	0.08
Puff count	7.8	8.2	8.5

In view of the standard deviations of individual measurements obtained (values in parentheses), only the trial run of prototype 8 P could be taken into consideration for further taste evaluation.

These prototypes will in any case be repeated with freshly flavoured PMS blend.

Observation : In the combination 6 x M. 0.15 . 4.5 micro-laser perforated tipping paper / FU-POV 100 plug wrap, the tipping paper is the limiting factor, no increase in dilution is obtained with plug wrap of greater porosity.

Z. Singer
Z. Singer

01/29/1981/ZDS/cap

0000144651